SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

Draft Staff Report for

Proposed Amended Rule 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II

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Deputy Executive Officer
Planning, Rule Development, & Area Sources
Elaine Chang, DrPH

Assistant Deputy Executive Officer
Planning, Rule Development, & Area Sources
Laki Tisopulos, Ph.D., P.E.

Director, Area Sources
Lee Lockie, M.S.

Author:	Moustafa Elsherif, M.S.	Program Supervisor
Assistance Provided by:	Sherri Fairbanks	A.Q. Specialist
	Mohan Balagopalan, M.B.A.	Senior A. Q. Engineer
	Thomas Liebel	Senior A. Q. Engineer
Reviewed By:	Jeri Voge	Senior Deputy District Counsel

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EXECUTIVE OFFICER: BARRY R. WALLERSTEIN, D.Env.

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EXECUTIVE SUMMARY

PAR 219 – Equipment Not Requiring a Written Permit Pursuant to Regulation II

Rule 219 is an administrative rule that exempts equipment emitting small amounts of air contaminants from District permit requirements under Regulation II. This staff proposal adds some equipment to the exemption list. Also, staff is modifying the agricultural exemption to require permits for small agricultural internal combustion engines and gasoline tanks. Also, staff is revising exemption language to clarify the intent of existing exemptions, and to be consistent with current terminology used in other District rules. This includes replacing the term "organic" with "VOC." Technical amendments include removing an exemption for a piece of equipment that might exceed toxic risk limits such as anhydrous ammonia storage and transfer equipment.

Staff proposes to exempt the following equipment that has very small potential for emissions:

1. Test cell and test stand for testing burners (b)(4);
2. Sub-slab passive underground gas collection and ventilation system (c)(10);
3. Control equipment to the basic equipment exempt under Rule 219, paragraphs (e)(1), (e)(2), (e)(3), (e)(11), (e)(17); (i)(1), (i)(8); (j)(9); (k)(1), (k)(4), (k)(5), (k)(7); and (p)(1), (p)(11).
4. Flywheel type shot peening operations and control equipment exclusively venting such equipment (f)(4);
5. Corona treating equipment and associated air pollution control equipment used for surface treatment in printing, laminating, or coating operations (h)(6);
6. Hand application of materials used in printing (h)(7);
7. Modified atmosphere food packaging equipment (i)(11);
8. Hand lay-up, brush, daubers and roll up of adhesives, dyes and coating operations (l)(10);
9. Water based fluorosilicic acid storage and transfer (m)(22);
10. Solvent cleaning equipment including dryers (o)(3);
11. Hand application of solvent for cleaning purposes (o)(4);
12. Air-cooled and liquid-cooled solvent recovery systems (p)(6); and
13. Evaporators used at dry cleaning facilities (p)(21).

Staff proposes not to exempt:

1. Hydrogen fluoride storage and/or transfer equipment with a capacity of more than 100 pounds (m)(2)(B);
2. LPG storage and/or transfer equipment with a capacity of more than 10,000 pounds (m)(2)(A);
3. Anhydrous ammonia storage and/or transfer equipment with anhydrous ammonia capacity greater than 500 pounds (m)(2)(C); and
4. Non-emergency internal combustion engines and equipment used in gasoline storage and/or transfer, purchased or modified after June 3, 2005 and operated by agricultural sources (q).

In addition, staff proposes to revise, reorganize and clarify language for certain exemptions as shown below:

1. Clarify that exemption of equipment, processes or operations requires record keeping in order to verify the exemption. This is added to the "Purpose" section;
2. Curing equipment (h)(1);
3. Relocate Agricultural Sources subdivision (c) and NESHAPS under subdivision (o), Cleaning;
4. Language clarification, reorganize or revise certain sections (h)(1), (e)(7), (e)(8) and (e)(11) and (o);
5. Replace references to "organic compounds" and "organic solvent emissions" with VOC or VOC emissions (i), (j), (k), (l) and (m), (p); and
6. Simplify and clarify the surface preparation exemptions under the subdivision (p) Miscellaneous Process Equipment (p)(4) and (p)(5);

BACKGROUND

Rule 219 is an administrative rule that exempts equipment, processes, or operations emitting small amounts of air contaminants from the District's permit requirements. The rule was adopted in 1976, and last amended in December 2004. The 2004 amendment identified specific exemptions and identified large agricultural sources that were no longer exempt from written permits. This proposed amendment addresses further recommendations from the regulated community as well as from staff.

LEGISLATIVE AUTHORITY

The California Legislature created the AQMD in 1977 (The Lewis-Presley Air Quality Management Act, H&S Code 40400 et seq.) as the agency responsible for developing and enforcing air pollution control rules and regulations in the South Coast Air Basin (Basin). By statute, AQMD is required to adopt an Air Quality Management Plan (AQMP) demonstrating compliance with all state and federal ambient air quality standards for the Basin (H&S Code 40460(a)). Further,

AQMD must adopt rules and regulations that carry out the AQMP (H&S Code 40440(a)). Finally, AQMD is authorized to establish a permit system for any equipment that may cause the issuance of air contaminants and to enforce its rules and regulations (H&S Code 42300 et seq.).

CALIFORNIA HEALTH AND SAFETY CODE SECTION 40724

Health and Safety Code Section 40724 requires local air pollution control districts and air quality management districts to adopt rules requiring best available control measures (BACM) for agricultural operations on or before July 1, 2005 and commence implementation of these rules on or before January 1, 2006. The requirements in Rule 219 are designed to assure compliance with BARCT for gasoline dispensing and internal combustion engines.

PROPOSED AMENDMENTS

The following equipment is proposed to be exempt from the permitting requirements:

1. Test Cell and Test Stand (b)(4)
    - Test cells and test stands are used to evaluate combustion performance, such as combustion efficiency and NOx or CO emissions. Currently, test cells for testing internal combustion engines, using less than 800 gallons of diesel fuel and 3500 gallons of gasoline fuel per year, are exempt. Staff is proposing to exempt test cells used for testing burners for boilers or ovens using less than 800 gallons of diesel fuel and 3500 gallons of gasoline fuel per year. These test stands are used for a short duration, at the most one or two months of intermittent testing per year. The impact on emissions from these test stands is insignificant.
    - Impact: No financial impact on the District because there are currently no permits issued to such equipment.
2. Sub-slab passive underground gases collection and ventilation system (c)(10)
    - Underground gases, mainly methane gas, emanating from subsurface geological formations to the atmosphere are natural phenomena. (These gases can also be emitted from abandoned and active oil wells.) Local agencies at the city and county levels regulate such collection systems in accordance with building and construction codes where methane gas is detected. The system should not use fans or any other means to induce or force the methane gas flow.
    - Impact: No financial impact on the District because there are currently no permits issued to such equipment.

3. Control equipment to the basic equipment exempt under Rule 219, (e)(1), (e)(2), (e)(3), (e)(11), (e)(17); (i)(1), (i)(8); (j)(9); (k)(1), (k)(4), (k)(5), (k)(7); and (p)(1),(p)(11).
    - Control equipment should be exempt since the basic equipment is exempt and has insignificant emissions. By adding control equipment to the Rule 219 exempt equipment, there will be an incentive for the operators to further reduce emissions and eliminate nuisance potential and complaints.
    - Impact: The change will result in a permit fee cost savings to the companies and a reduction of annual operating fees of $600 to $3000.
4. Shot peening,[1] flywheel type equipment and control equipment exclusively venting such equipment (f)(4);
    - Shot peening using a flywheel should be exempt to differentiate this method from the shot blast that uses forced air that creates more particulate emissions. This is more of a clarification than a new exemption. The current language specifies that shot peening operations and control equipment are exempt provided no surface material is removed. However, this kind of operation/equipment always results in a small amount of surface material removal and it then requires a permit. The amount of surface material (PM10) is insignificant. The proposed change will exempt about 4 units that are currently permitted.
    - Impact: This change will result in a permit fee cost savings to the companies, and a reduction of annual operating fees in the amount of approximately $860 to the District.
5. Corona treating equipment and associated air pollution control equipment used for surface treatment in printing, laminating, or coating operations, paragraph (h)(6).
    - Corona treatment is a technology where ozone is used to etch substrates such as plastic to enable water-based coatings to be applied. Corona treating equipment used in printing, laminating and coating operations produces ozone only incidentally and this is not a significant source of ozone. Typically ozone amounts to less than 1 lb/day per equipment. The ozone gases quickly dissipate and cause no increase in emissions.
    - Impact: No financial impact on the District because there are no permits issued to such equipment.

[1] Shot peening is where smelt metal or ceramic balls called "shot" are used to bombard the surface of a metal component. Each shot that strikes the part's surface acts as a tiny hammer causing an indentation or dimple that strengthens the surface and removes unwanted materials.

6. Hand application of materials used in printing (h)(7).
    - Tools such as squeegees, stencils, stamps, screens or any other hand tools are proposed to be exempt because they produce insignificant emissions.
    - Impact: No financial impact on the District because there are no permits issued to such equipment.
7. Modified atmosphere food packaging equipment (i)(11);
    - To increase the shelf life of food products, equipment is used to replace the air inside the food package with gas or a gas mixture containing protective and reactive properties. The gas mixture will contain 30% carbon dioxide and nitrogen and is certified by the USDA to ensure no more than 0.4% of CO is in the mixture. Estimated CO emissions per machine are insignificant.
    - Impact: It is estimated that less than 20 machines are operating in the District. There is no financial impact on the District since there are currently no permits issued to such.
8. Hand lay-up, brush, daubers and roll up of adhesives, dyes and coating operations (l)(10);
    - Hand lay-up operations have been exempt because of their insignificant emissions potential. The proposed change adds adhesive, dye and coatings applied with hand tools to eliminate confusion and make it explicit as to their exemption.
    - Impact: No financial impact on the District because there are currently no permits issued for such equipment.
9. Water-based fluorosilicic acid storage and transfer (m)(22)
    - Drinking water process tanks contain fluorosilicic acid (FSA) with a concentration of 30% or less and a vapor pressure of 24 mm Hg or less at 77 degrees Fahrenheit. The HF in the solution does not exceed 1% by weight. FSA is injected into the drinking water system as a fluoridation function to optimize the fluoride levels to prevent tooth decay to the public. District staff calculated emissions based on FSA and Hydrogen Fluoride (HF) concentrations for operating and breathing losses of the system. FSA and HF uncontrolled and controlled emissions are well below the risk level of Tier 1 of Rule 1401. The Metropolitan Water District (MWD) and Los Angeles Department of Water and Power (LADWP) requested that the District specifically include FSA storage tanks in accordance with the examples of other exempt aqueous tanks.
    - Impact: Currently, there are several permitted FSA tanks for LADWP and MWD. The proposed amendment will result in a cost

savings in annual renewal fees to these agencies. The District's financial impact will be about $2000 in annual renewal fees lost.

10. Solvent cleaning equipment including dryers serving low-VOC cleaners (o)(3)
    - Staff proposes that Rule 219 should exempt dryers serving the solvent reclamation systems. The previous amendment of November 17, 2000 exempted dryers on parts cleaners provided the dryer rating is 2 million BTU/hour or less. However, the July 11, 2003 amendments inadvertently excluded the dryers (associated with parts cleaners) for exemption. The solvent cleaning equipment and dryers will have fewer emissions than the cleaner alone.
    - Impact: This change should result in a cost savings to the companies, but has no financial impact on the District since there are currently no permits issued to such equipment.
11. Hand application of solvent for cleaning purposes (o)(4);
    Hand cleaning with solvents using small swabs, rags, daubers and squeeze bottles are proposed to be exempt due to insignificant emissions.
    - Impact: No financial impact on the District because their currently are no permits issued to such operations.
12. Air-cooled/liquid cooled solvent recovery systems (p)(6)
    - Closed loop solvent recovery systems with refrigerated or water cooled condensers used for recovery of waste solvent generated on-site are currently exempt. However, there are systems that use air or liquids other than water for the same purpose. VOC emissions utilizing this technology are estimated to be insignificant since it is a closed loop recovery system; however, staff will notify equipment manufacturers and users that as low-VOC solvents are recycled, they become more concentrated. Re-introduction of reclaimed solvents will increase levels of VOC in the cleaning materials. The new air cooled type is also proposed to be exempt providing the system has a capacity of less than 10 gallons.
    - Impact: No financial impact on the District because there are currently no permits issued to such operations.
13. Evaporators used at dry cleaning facilities (p)(21)
    - This equipment is used to eliminate solvent contaminated wastewater discharged from the solvent/water separators in the dry cleaning process. The evaporator heats the water and evaporates the solvent. The wastewater contains perchloroethylene of between 200-300 ppm by volume based on samples taken last year. Therefore, the wastewater produces 1-2 grams/day of perchloroethylene at each dry

cleaner. The evaporator uses a carbon filter to further control these emissions to the atmosphere such that the emissions are insignificant.

- Impact: No significant impact on the District because there are no permits issued to such equipment.

The following equipment is proposed to be permitted:

1. Hydrogen fluoride storage and/or transfer equipment with capacity of more than 100 pounds and LPG storage and/or transfer equipment with capacity of more than 10,000 pounds (m)(2).
    1. Hydrogen Fluoride storage tanks now have a capacity limit of 100 pounds instead of 1,057 gallons. LPG storage capacity is proposed to be 10,000 pounds instead of 19,815 gallons. The current limits for this equipment must be changed to address the risk assessment requirements under Rules 1401 and 1402. The new proposed limits reflect CARB Risk Management Program (RMP) thresholds. If equipment capacities exceed the proposed thresholds, a permit will be required to evaluate the risk. The new exemption limits are revised to comply with the hazardous and toxic levels cited in the RMP.
        - Impact: Emissions at risk from potential leaks and releases will be reduced as a result of these adjustments to the thresholds; however staff cannot estimate this reduction since the numbers and size of these tanks are yet not available. Each tank will be subject to a $967.11 permit fee and a $220.89 annual renewal fee.

    2. Equipment used in the storage and/or transfer of liquefied anhydrous ammonia with a capacity of greater than 500 pounds.
        - Anhydrous Ammonia (NH3) is toxic and is listed in Table 1 of Rule 1401 – Air Toxic Contaminants. NH3 is a compound formed by the combination of two gaseous elements, nitrogen and hydrogen. NH3 is provided in a variety of grades for agricultural, industrial, metallurgical and refrigeration operations. The permit will require the storage tank and vaporization system to have monitoring devices to detect excess emissions, daily inspection and maintenance of all valves and components, and a log for recordkeeping purposes that must be approved by District staff. Associated emission control equipment will also require a District permit. Anhydrous ammonia tanks are already part of the existing permitted equipment/system. This provision affects only equipment that has no permit. The 500 pound threshold

specified in the exemption is consistent with the requirements established under the CARB Risk Management Program (RMP).

- Impact: Permitting is necessary to establish and enforce appropriate permit conditions for the safe operation of equipment used in the storage and/or transfer of significant quantities of anhydrous ammonia and minimize risk from exposure due to potential leaks and release of ammonia. According to the District permit fee schedule, the anhydrous ammonia tank permit fee will be $967.11. The annual renewal is $220.29.

3. Non-emergency internal combustion engines and equipment used in gasoline storage and/or transfer equipment purchased or modified after June 3, 2005 and operated by agricultural sources.
    - Under this proposal to amend Rule 219, agricultural fuel dispensing tanks and internal combustion engines (ICE) purchased or modified after June 3, 2005, and exceeding minimum capacity and brake horsepower thresholds, will require operating permits.

BACKGROUND

Because of the need in California to reduce emissions from agricultural operations, Senate Bill 700 (Florez) – Agricultural Operations Air Quality was enacted into law on January 1, 2004. SB 700 eliminated the statewide permit exemption for agricultural operations and required district rules to be adopted to reduce emissions from certain sources. Specifically, SB 700 requires air districts to implement BARCT for agricultural fuel storage and dispensing equipment, internal combustion engines and other stationary equipment contributing to smog-forming emissions. In addition, SB 700 authorized air districts to require written permits for large agricultural operations and also for smaller operations provided certain findings are made at a public hearing.

To fulfill the permitting requirements of SB 700, the District amended Rule 219 in December, 2004 to require written permits for large agricultural operations only and opted to continue to exempt the BARCT requirements of small agricultural operations with emissions less than 50 percent of the Title V thresholds and equipment operated by such facilities from the permitting requirements. As part of the District's steps to further implement this

state law, on June 3, 2005, the Governing Board adopted amendments to Rule 461, Gasoline Transfer and Dispensing and Rule 1110.2, Gaseous and Liquid-Fueled Engines (ICEs) in order to comply with SB 700. Rule 461, amendments to remove the exemption for agricultural sources, required best available retrofit technology for all agricultural engines and improved the enforceability of the rule. Amendments to Rule 1110.2 removed the exemption for stationary non-emergency, agricultural internal combustion engines and required them to comply on a tiered compliance schedule. During the rule development process, it became apparent that it will be very difficult to enforce Rules 1110.2 and 461 unless all the affected ICEs and gasoline storage and dispensing equipment are required to have permits.

In amending these rules, the Board adopted a resolution that then directed staff to prepare an amendment to Rule 219 that will require all agricultural fuel dispensing tanks and engines subject to these rules to have an AQMD permit and bring it to a public hearing for Board consideration.

The proposed amendments to Rule 219 are intended to implement the Governing Board's direction to require written permits from internal combustion engines and gasoline storage and transfer equipment operated by agricultural operations with emissions less than 50 percent of the Title V thresholds and make the necessary findings under SB 700 of necessity and that the requirement to obtain a permit from such sources is not significantly more burdensome compared to other similar sources within our jurisdiction.

RULE 461, GASOLINE TRANSFER AND DISPENSING

During the development of PAR 461, it was recognized that without written permit requirements, enforcement of the gasoline storage and dispensing rule requirements to ensure that emission reductions would be achieved was impractical, at best. Therefore, staff is recommending the permitting of vapor recovery systems subject to Rule 461 installed and operated by agricultural operations, regardless of their size.

The 2005 amendments to Rule 461 were designed to satisfy the requirements of SB 700 by requiring BARCT at agricultural operations. Rule 461 proposed amendments will eliminate by July 1,

2007, the exemptions from the rule requirements currently enjoyed by agricultural operations by subjecting them to the same requirements that apply to all other non-retail gasoline transfer and dispensing operations. Operators that elect to install CARB-certified systems and be subject to the requirements of Rule 461 will also be permitted by the AQMD under this proposal, regardless of the size of the agricultural operation. History has shown that without a strong enforcement presence, operators do not adequately maintain the vapor recovery systems to achieve the required control efficiency on a continuous basis. It is expected that the agricultural operators will perform no differently from the universe of other operators. The permit is the mechanism that will allow the AQMD to ensure that compliance is achieved.

In proposing this amendment to Rule 219, staff is proposing that permits be required for gasoline storage tanks with a capacity of greater than 251 gallons. These provisions will apply only to equipment purchased or modified after June 3, 2005. Consistent with the current exemption threshold for all other stationary sources, agricultural gasoline tanks with a capacity of less than 251 gallons will be exempt from the requirement to obtain permits.

Permits will ensure that certified equipment are utilized and installed appropriately and will verify that testing requirements such as static pressure or others to assess performance of phase I and phase II vapor recovery systems are complied with.

The permit requirement and associated fees are the same as those imposed on all other retail and non-retail operators subject to the requirements of Rule 461

In summary, written permits are necessary to allow staff to identify the location of such equipment, impose necessary permit conditions necessary to ensure compliance with Rule 461, and recover costs necessary to effective enforcement.

RULE 1110.2, GASEOUS AND LIQUID-FUELED ENGINES

Stationary ICEs represent a significant source of emissions. A recent field study revealed that these engines, if not properly maintained and operated, can result in significant emissions. Specifically, source testing conducted prior to the recent amendments to Rule 1110.2, revealed that ICEs consistently exceed emission limits specified in their permit conditions. Chart 1 below presents the results of the

NOx testing. The average NOx emissions were significantly higher than Rule 1110.2 emission limits. The highest emissions measured were about 20 times more than the rule's NOx limits and six times the rule's CO limits. In general 63.8% of all tested engines were not in compliance with Rule 1110.2. Another similar district study showed that unregulated stationary agricultural ICEs could emit up to 80 times more NOx than ICEs operated by other industries.

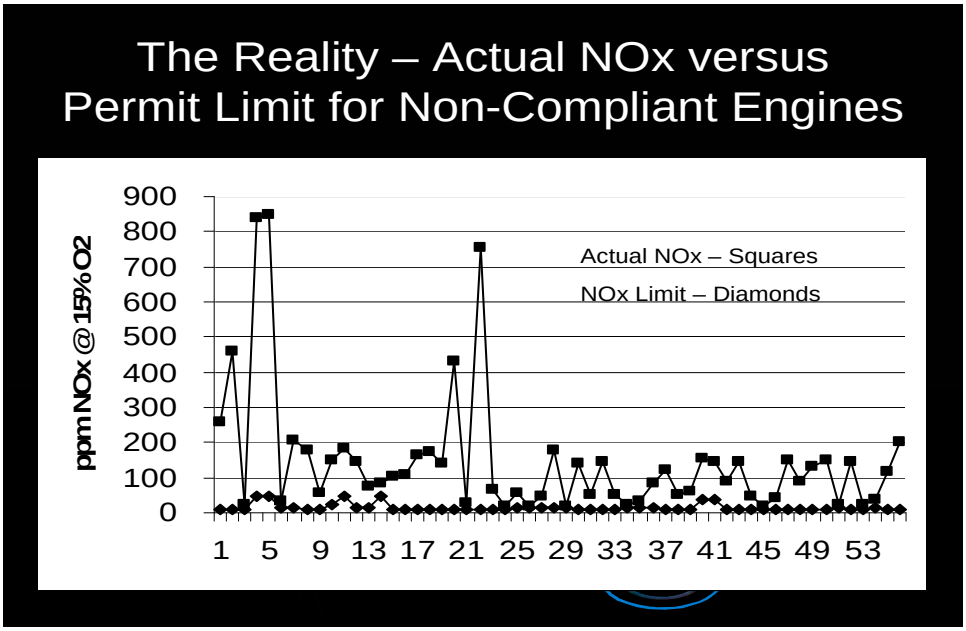

Chart 1 NOx Source Test Results

To ensure that new and existing ICEs meet the applicable BACT and BARCT standards, respectively, and that these standards are adequately enforced, staff is proposing that permits be required for agricultural ICEs with more than 50 brake horsepower. These provisions will apply only to equipment purchased or modified after June 3, 2005. Consistent with the current exemption thresholds for all other stationary sources, agricultural ICEs with 50 horsepower or less will be exempt from the requirement to obtain permits. The permit requirement and associated fees are the same as those imposed on all other operators of this equipment. In addition to the Rule 1110.2 requirements and emissions limitations, permit conditions on these engines will assure compliance with the following additional rules:

- Rules 1470 and 431.2 to verify sulfur content
- Rule 407 to verify CO emission limits
- Rule 301 to verify opacity and visible emissions and
- 1401 and 1402 to verify risk levels.

Permits are necessary to allow AQMD staff to identify the location of sources, impose conditions necessary to ensure compliance with Rule 1110.2, and recover costs necessary for effective enforcement.

AFFECTED FACILITIES

The proposed amendments to Rule 219 that will require permits for gasoline storage and dispensing equipment would affect approximately 100 agricultural facilities in the four-county area. These facilities mainly belong to dairy cattle and milk production, beef cattle ranching and farming, poultry production, and nursery and tree production.

There are thousands of engines and many hundreds of stationary source facilities subject to Rule 1110.2 that are currently permitted, including engines operated by agricultural operations with emissions greater than the 50 percent of the Title V emission thresholds listed in subdivision (q) of PAR 219. As stated above, this amendment to Rule 219 will add all agricultural facilities, currently exempt, with stationary non-emergency ICEs over 50 brake horsepower to be permitted in accordance with Rules 201 and 203. A recent AQMD survey of agricultural operations found few agricultural facilities operating stationary ICEs. However, taking into account the survey response rate, the agricultural facilities and ICEs that may be subject to Rule 1110.2 could be as high as 41 and 92, respectively. These stationary, non-emergency ICEs are a mix of uncontrolled diesel and natural gas engines used primarily as water pumps.

- Impact: The District will experience a slight increase in permitting activity. The associated permit fees for gasoline dispensing equipment is $967.12 (or $483.56 for small businesses)and $1541.34 for ICE (or $770.67 for small businesses). The annual renewal fee for each equipment type is $220.29. These fees will allow the AQMD to partially recover the engineering analysis and compliance costs directly from those receiving the agricultural permits rather than to rely on other fee programs to subsidize these additional costs.

LANGUAGE CLARIFICATION AND REORGANIZATION

1. Clarify that exemption of equipment, processes or operations requires recordkeeping to validate the exemption. This is added to the "Purpose" section.
    - The recordkeeping language as stated in subdivision (t), is restated under the "Purpose" section for emphasis. Adequate records must be maintained by a facility to verify and maintain any exemption from the District permit requirements. The change reflects the current practice in determining what equipment requires a permit and what equipment is exempt from permit. The new language is less ambiguous and makes permit determinations more clear for both the regulated community and the staff.
    - Impact: No impact, clarification only.
2. Curing equipment (h)(1)
   This change is a matter of semantics as Ultraviolet Lights or Electron Beams are not necessarily dryers but also part of a curing process. These changes would improve the technical accuracy of the rule intent. VOC emissions are insignificant during this curing process.
    - Impact: No financial on the District because this equipment is currently not permitted.
3. Reorganize certain sections for clarification.
    - Relocate Agricultural Sources subdivision: Subdivision (c) for Agricultural Sources will be moved to Subdivision (q) to retain the same familiar numbering system as requested by industry and District staff.
    - Under Subdivision (o)–*Cleaning*, relocate the exclusion for "NESHAPs" solvents to the beginning of the subdivision. Staff requested this change for clarification, and to highlight "NESHAPs" solvents that are not exempt under this rule.
    - Impact: No impact, clarification only.
4. Clarify that materials processed in the ovens do not have VOC (e)(7). Also substitute amperes unit as in this commercial application for kilowatts (e)(8)
    - Impact: No impact
5. Replace references to "organic compounds" and "organic solvent emissions" with VOC or VOC emissions. i(4),(6),(9), and (10); j(7); k(2);l(1) and (2); m(3), (4), (5),(9), and 20, and (p)(1) and (2).
    - The terms "organic compound" and "organic solvent" are no longer used in District rules, and these terms may exclude some VOC containing materials that should be permitted such as acetic acid.

This change also will exclude exempt compounds from triggering permits.

- Impact: Insignificant change and no impacts on District permitting or facilities. The new language is less ambiguous and reflects the current practice.

6. Simplify and clarify the surface preparation exemptions in (p)(4) and (p)(5)
   - The purpose of reorganizing these two paragraphs is to clearly identify each equipment/operation exemption. Exemption limits and conditions remain the same. In addition, staff recognizes the exemption of small unheated nitric acid, hydrochloric acid, or hydrofluoric acid cleaning tanks with an open area of one square foot or less and no visible emissions.
   - Impact: No impact, clarification only.

CALIFORNIA HEALTH AND SAFETY CODE SECTION 40727.2 ANALYSIS (COMPARATIVE ANALYSIS)

Health and Safety Code Section 40727.2 requires a comparison of the proposed amended rule with existing regulations imposed on the same equipment. There are no federal or District current air pollution regulations that affect these types of operations.

INCREMENTAL COST EFFECTIVENESS

Health and Safety Code Section 40920.6 requires an incremental cost-effectiveness analysis of potential control options for rules which would achieve the emission reduction objective relative to Ozone, CO, SOx, NOx, and their precursors. The proposed amendments to Rule 219 are administrative in nature and do not result in emission reductions. Therefore, the incremental cost-effectiveness analysis is not required.

CALIFORNIA ENVIRONMENTAL QUALITY ACT

Pursuant to the California Environmental Quality Act (CEQA) and SCAQMD Rule 110, appropriate documentation will be prepared to analyze any potential adverse environmental impacts associated with the proposed amendments to Rule 219. Comments received at the public workshop will be considered when determining the CEQA document.

SOCIOECONOMIC ASSESSMENT

The primary socioeconomic impact of the proposed amendments to Rule 219 will be in removing the exemption from permitting for non-emergency internal combustion engines and equipment used in gasoline storage and/or transfer equipment purchased or modified after June 3, 2005 and operated by agricultural sources. The Socio Economic Assessment is found in Appendix B.

Gasoline storage/transfer and dispensing equipment. Equipment storing more than 251 gallons will now require a permit. It is expected that gasoline storage and dispensing equipment subject to Rule 461 would not incur permit and annual operating fees because agricultural facilities would switch to using tanks less than 251 gallons to comply with the exempt threshold.

Non-emergency internal combustion engines. Engines greater than 50 horsepower in agricultural facilities will require a permit. Permit fees and annual operating fees for internal combustion engines are $1,541 and $220 respectively and are the same as those charged for other regulated facilities under Regulation III – Fees. A comparison of small agricultural facilities with small businesses requiring permits to comply with Rule 1110.2 indicates that fees that small agricultural facilities pay are generally less of a burden than for other small businesses with permits under this rule.

FINDINGS UNDER CALIFORNIA HEALTH AND SAFETY CODE

Before adopting, amending, or repealing a rule, the California Health and Safety Code (H&SC) requires AQMD to adopt written findings of necessity, authority, clarity, consistency, non-duplication, and reference, as defined in H&SC section 40727. The findings are as follows:

Necessity - The AQMD Governing Board has determined that a need exists to: amend Rule 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II, to exempt from written permits certain equipment that has been evaluated and found to emit small amounts of air contaminants, to include new and clarified rule language for various types of equipment, and in order to implement Health and Safety Code Section 40724 (air pollution from agricultural sources; and the AQMD Governing Board finds pursuant to Health and Safety Code Section 42301.16 for agricultural sources of air pollution subject to Rule 471 – Gasoline Transfer and Dispensing and Rule 1110.2, Gaseous and Liquid-Fueled Engines, that a permit is necessary for its gasoline transfer and dispensing operations and internal combustion engines subject to Rules 461 and 1110.2 respectively, to establish and enforce permit conditions that will result in reductions of emission of air pollutants that the AQMD has shown to cause or contribute to a violation of a state or federal ambient air quality standard; and

Authority - the AQMD Governing Board obtains its authority to adopt, amend, or repeal rules and regulations from H&S Code Sections 39002, 40000, 40001, 40440, 40702, 40724, 40725 through 40728, 41508 and 42300 of the California Health and Safety Code; and

Clarity - the AQMD Governing Board has determined that PAR 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II is written and displayed so that the meaning can be easily understood by persons directly affected by the rule; and

Consistency - the AQMD Governing Board has determined that PAR 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II is in harmony with, and not in conflict with, or contradictory to, existing statutes, court decisions, federal or state regulations;

Burden - and the AQMD Governing Board finds pursuant to Health and Safety Code Section 42301.16 for agricultural sources currently not required to have a permit to operate equipment subject to Rule 461 – Gasoline Transfer and Dispensing and Rule 1110.2, Gaseous and Liquid-Fueled Engines, that the requirement for an agricultural source to obtain a permit for its gasoline transfer and dispensing operations and internal combustion engines subject to Rules 461 and 1110.2 respectively, does not impose a burden that is significantly more burdensome that permits required for other similar sources of air pollution; and

Non-Duplication - the AQMD Governing Board has determined that the proposed amendments to Rules 219 - Equipment Not Requiring a Written Permit Pursuant to Regulation II does not impose the same requirement as any existing state or federal regulation, and the proposed amended rule is necessary and proper to execute the powers and duties granted to, and imposed upon AQMD; and

Reference - in adopting these regulations, the AQMD Governing Board references the following statutes which AQMD hereby implements, interprets or makes specific: H&S Code Sections 40001 (rules to achieve ambient air quality standards), 40506 (rules regarding the issuance of permits), 40701 (rules regarding district's authority to collect information), 42300 et seq. (authority for permit system), and 42320 (rules implementing the Air Pollution Permit Streamlining Act of 1992); other findings:

CONCLUSION

Rule 219 is an administrative rule that is amended frequently to add, delete or clarify language regarding equipment that is exempt from District permitting requirements. This amendment attempts to further refine and clarify the rule language. Also, the amendment proposes to exempt certain equipment with low emission potential and not to exempt equipment that might exceed toxic risk limits.

This amendment also completes the regulatory implementation of SB 700 that removes the statewide exemption for agricultural sources.

APPENDIX A

RESPONSE TO PUBLIC COMMENTS

This section summarizes the issues raised at the February 22, 2006 Public Workshop and written comments received as of the March 10, 2006 deadline for public comments on this proposal.

Comment: Concerns were raised by many commenters regarding the proposed operational permit for a facility that has certain specified equipment, processes or operations such as cooling towers, hand tools used in printing, coating and laminating and cleaning that are individually exempt from permits, but may emit 4 tons or more of VOCs or Particulate Matter (PM10) individually or in aggregate in any one calendar year. Many of these processes are regulated by source specific rules; commenters stated that this will create an additional financial burden on facilities. It was commented that the rule language implies that facilities with current permits will also be subject to this operational permit if it meets the 4 ton criterion.

Response: In view of these concerns and comments received from several companies, staff has decided to defer this proposal for further study. Exempt equipment that in aggregate emit 4 tons or more of either VOC or PM10 may be proposed for permitting in future amendments to the rule.

Comment: Staff is proposing to require a permit for anhydrous ammonia storage/transfer equipment. Anhydrous ammonia is a toxic substance listed in Rule 1401 and requires staff review. The District is proposing this change without regard to the quantity stored, i.e. there would be no minimum quantity that would remain exempt. We suggest that staff establish a threshold amount of anhydrous ammonia which remains exempt under this rule.

Response: Staff agrees and has established the threshold amount at 500 lbs or less of anhydrous ammonia that can be stored without triggering a permit.

Comment: Staff had proposed to permit passive underground gas collection systems. This is not necessary. New homes and commercial buildings affected by such underground gases are now equipped with piping systems under the slabs to collect the gases and these are naturally occurring methane gases.

Response: After reviewing these collection systems, staff has decided to exempt them, provided that the system uses no fans or blowers to induce or force the methane gas flow. The exemption is found in Section (c)(10).

Comment: Metropolitan Water District (MWD) and Department of Water and Power (DWP) requests the District to exempt fluorosilicic acid (FSA) storage and transfer equipment along with the other exempt aqueous tanks. FSA is injected into drinking water tanks as a fluoridation function. Based on staff's analysis, uncontrolled and controlled emissions are well below the rule 1401 risk levels.

Response: Staff agrees and has proposed to exempt this type of storage tank provided that the fluorosilicic acid concentration does not exceed 30% by weight.

Comment: SB 700 [H & S Code section 42301(c)] specifically prohibits the permitting of agricultural equipment that emit less than ½ the Major Source Threshold of any air contaminant (excluding fugitive dust) unless the air district has a compelling reason to permit those sources. The district must make three findings of necessity prior to amending Rule 219 (California Farm Bureau).

Response: Staff agrees that Health & Safety Code Section 42301(c) allows written permits to be required for equipment at agricultural operations with emissions of less than one half the Title V emission thresholds provided the Board finds, at a public hearing, that (1) a permit is necessary to impose or enforce reductions of emissions of air pollutants that cause or contribute to exceedances of an ambient air quality standard and that (2) the requirement to obtain a permit is not significantly more burdensome for the agricultural source operators than the requirement for other operators at similar sources to obtain permits and the permit is not already subject to a permit requirement pursuant to H & S Section 40724.6 (large confined animal facilities.).

Permits for Internal Combustion Engines (ICEs) and gasoline storage and dispensing equipment are necessary to effectively enforce and ensure compliance with the requirements of applicable rules listed in the staff report including rules 1110.2, 1401, 1402, 401 and 461.. These provisions will apply only to equipment purchased or modified after June 3, 2005:

Rule 461 testing and record keeping requirements indicated in the permit conditions
Rule 1401 and 1402 to verify risk limits

Staff also believes that requirements to obtain a permit are not more burdensome for agricultural operations than the requirements at similar sources such as small and large retail gasoline dispensing facilities or non-retail such as hospitals, post offices, rental car yards, lumber yards, construction companies or rental yards where their gasoline tank capacity is more than 251 gallons as currently provided in Rule 219(m)(9).

ICEs are more widely used by similar large and small facilities and many contractors throughout the District. They all have to have a permit as long as their ICEs exceed the current exemption of Rule 219(b)(1) of 50 horsepower limit.

Staff's experience in implementing Rule 1110.2 and Rule 461 has shown that this equipment requires continuous attention by the operator and vigorous enforcement presence to ensure they operate properly and in accordance to the rules and permit conditions.

Comment: We have concerns for the new requirements for plasma arc cutting equipment. Currently, plasma arc cutting equipment, and control equipment venting such equipment, is exempt provided that no stainless steel materials are cut and that the arc cutting is rated less than 30 KW. The proposed change would exempt up to 8 pounds of material cut and containing less than 1% by weight of carcinogenic air contaminants listed in Rule 1401. A facility will be required to keep records of the weight of the material cut by indicating the length, width, and depth of each cut and the density of the material. Recordkeeping is a burdensome requirement that will entail training, recording/recordkeeping by vendors and contractors. These operations do not pose any significant off-site risk.

Response: After reevaluating this proposed change, staff has agreed to remove this new provision, leaving the original exemption language unchanged. However, staff changed the rating of 30 KW to an equivalent 125 amperes to reflect the current commercial unit used.

Comment: Currently, closed loop solvent recovery systems with refrigerated on-site condensers used for recovery of waste solvent generated on-site are exempt. Staff's language was modified to include liquid-cooled

and air-cooled condensers (air-cooled only up to 10 gallon capacity). We suggest that staff exempt systems with air-cooled condensers of up to 40 gallons capacity.

Response: Staff does not agree. Based on test information available to the staff, air-cooled systems are not as efficient as liquid or refrigerated systems. During the last year, tested emissions from systems with larger than 10 gallon capacity were significant. The proposed language will be unchanged until further testing is completed and large air cooled systems have been evaluated.

Comment: 3-Dimensional objects and patterns of films and substrates using the roller-to-roller process should be exempt with photo curable stereo lithography equipment.

Response: Staff needs additional technical information and more precise description of this equipment. Staff will also schedule a field visit to this facility to conduct emissions evaluation. Staff will complete this evaluation in time to make an informed recommendation for the next amendment to Rule 219.

Comment: Test cells and test stands used for testing internal combustion engines are currently exempt. We would like to use the test cell to test burners for boilers and other combustion applications and believe that permits should not be required.

Response: Staff agreed to propose to exempt test cells and test stands for burner testing provided the burners use less than 800 gallons of diesel fuel and 3,500 gallons of gasoline fuel per year. The proposed exemptions is found in Section (b)(4).

Comment: One company asked that staff propose a Rule 219 exemption for pressure washers with a heated water system.

Response: Pressure water washing systems are exempt provided that the heat source is also exempt under Rule 219 paragraph (b).

Comment: Section (h)(1) of the rule exempts drying but not curing systems for printing and reproduction equipment. We ask that the curing equipment be exempt as well.

Response: Staff intends to exempt curing equipment as well as dryers as long as they are exempt pursuant to paragraph 219(b)(2).

Comment: The rule exempts solvent reclamation systems and the current language does not address coating reclamation systems.

Response: Staff visited some coating facilities and inspected their coating reclamation systems and determined that, the reclamation system is a part of the coating equipment and should be part of the permit unit. In addition, if the reclamation system is not a part of the permit unit it will be exempt under paragraph (m)(9).

Comment: The process of recycling exempt compounds as defined in Rule 102 should be exempted under Rule 219.

Response: An exempt compound does not require a permit under Rules 201 and 203. Rule 219 exempts small equipment that requires a permit under Rules 201 and 203. Exempt compounds are not considered air contaminants; therefore, the recycling of exempt compounds need not be specified as exempt under Rule 219.

Comment: Modified atmosphere food packaging equipment should be exempt since there are insignificant emissions. This equipment is used to increase the shelf life of the food products.

Response: Staff has agreed to exempt such equipment and the proposed exemption is found in Section (i)(11). This equipment is used to replace atmospheric air inside the package with a gas mixture that is certified by the USDA to ensure no more than 0-4% of CO.

Comment: Publicly Owned Treatment Works (POTWs) requested an exemption for small portable carbon drums with a capacity of 55 gallons or less to vent and treat foul air or digester gas leaking during maintenance. The carbon is recycled, recharged and used again to control these gases.

Response: There are currently no permits issued for this equipment; however staff needs time to analyze the operation and resultant emissions. This, staff is not ready at this time to propose this exemption. This can be considered in future proposals.

APPENDIX B

SOCIOECONOMIC ASSESSMENT

Compliance Costs

The primary socioeconomic impact of the proposed amendments to Rule 219 is in requiring permits for small agricultural facilities with emissions less than half the major source threshold and require permits for non-emergency internal combustion engines greater than 50 horsepower and gasoline storage and dispensing equipment greater than 251 gallons. These equipment categories are already regulated but not required to file permits under Rule 1110.2 – Emissions from Gaseous and Liquid Fueled Internal Combustion Engines and Rule 461 – Gasoline Transfer and Dispensing. There are also a small but unknown number of facilities with anhydrous ammonia tanks not already permitted that will now require permits, and facilities that will incur minor cost savings from equipment that is being exempt. However, these costs and savings cannot be estimated since the number of equipment involved in each category is unknown.

PAR 219 Agricultural Facilities

In April and June 2004 AQMD conducted an agricultural operations mail survey to 1,925 agricultural facilities. Of the 885 surveys returned (46% response rate), 473 surveys reported having animals or various types of equipment (non-emergency internal combustion engines, boilers/heaters, gasoline storage, and dispensing equipment, grain conveyor/silo, paint spray equipment or degreasers). Out of the 473 surveys reporting animals or equipment, 191 surveys reported non-emergency internal combustion engines or gasoline storage and dispensing equipment. These 191 facilities could comprise small and large agricultural sources based on whether their actual emissions are above or below half the major source threshold. It is impossible to definitively determine only those facilities that are small agricultural sources since emissions data is not yet available on any agricultural sources.

The 2004 Dun and Bradstreet data has employment and gross revenue information on 82 (43%) out of the 191 agricultural facilities reporting non-emergency internal combustion engines or gasoline storage and dispensing equipment. It is expected that gasoline storage and dispensing equipment subject to Rule 461 would not incur permit and annual operating fees as agricultural facilities would switch to using tanks less than 251 gallons to comply with this rule. These 82 affected facilities are in the industries of NAICS 111 – Crop Production (29%), NAICS 112120 – Dairy Cattle and Milk Production (60%), and NAICS 112310 – Chicken and Egg Production (11%).

Permit fees and annual operating fees for internal combustion engines are $1,541.34 abd $220.29 respectively and are the same as those charged for other regulated facilities under Rule 1110.2.

In addition to permit application and annual operating fees, additional fees may be incurred in hiring technical assistance for permit application preparation and time spent in permit recordkeeping and maintenance requirements. These additional fees cannot be determined conclusively, but staff estimates that permit application preparation would be approximately 2-3 hours of effort and that permit recordkeeping and maintenance requirements would require at least 50 hours of effort annually. These activities would not necessarily require the work of a consultant but might be handled internally. It is not possible to estimate permit application, recordkeeping and maintenance requirement costs since these would vary based on the number, types, and age/condition of equipment at an agricultural facility.

Table 1 shows total compliance costs for permit and annual operating fees to be $0.303 million for the 82 agricultrual facilities. Of the 82 facilities, dairy farms incur the highest portion of fees (51%), followed by crop farms (37%), and poultry farms (12%).

Table 1−Compliance Costs for Small Agricultural Facilities

Category	Cost (2006 $)
Permit Fees (One-time)	$265,052
Crop/Nursery	98,624
Dairy	134,067
Poultry	32,361
Other Animal Production	0
Annual Operating Fees	$37,840
Crop/Nursery	14,080
Dairy	19,140
Poultry	4,620
Other Animal Production	0
Permit and Annual Operating Costs	**$302,892**

AQMD permitting data indicates that some of these agricultural facilities may have retired certain pieces of equipment to avoid permit and annual operating fees. Alternatively, facilities may not have reported these pieces of equipment or permits are being processed for this equipment. Hence costs reported for permit and annual operating fees may be an overestimate of actual costs.

Individual facilities pay $1,761 - $14,088 in fees and have 1-8 pieces of equipment. Their fees as a percentage of revenue ranges from ≤0.01% to 5.87%, with crop/nursery and dairy facilities paying a higher percentage of revenue as shown in Table 2.

Table 2−Fees as a Percentage of Revenue for Small Agricultural Facilities by NAICS

Industry (NAICS)	Category	Revenue	% Fees/Revenue
111	Crop/Nursery	73,754,897	≤0.01% - 5.87%
112111 – 112120	Dairy	58,692,665	0.01% - 4.63%
112310	Poultry	23,957,000	0.05% - 2.26%
112410 - 112990	Other Animal Production	N/A	N/A
TOTAL		$156,404,562	

Similar Facilities

Rule 1110.2 Agricultural Facilities

For the purpose of findings related to SB 700 for this analysis, similar sources are considered by the District subject to permit requirements of Rule 1110.2. This consists of six agricultural facilities that have filed permits for non-emergency internal combustion engines. Of these six Rule 1110.2 agricultural facilities, there is Dun and Bradstreet revenue data on three dairy farm facilities. Individual Rule 1110.2 agricultural facilities pay $1,762 - $10,566 in fees and have 1-6 pieces of equipment. For individual facilities, fees as a percentage of revenue ranges from 0.28% to 0.73% which is within range of fees paid by the PAR 219 agricultural facilities.

Rule 1110.2 Non-Agricultural Facilities

A comparison ofPAR 219 agricultural facilities with small businesses requiring permits under Rule 1110.2 indicates that fees that small agricultural facilities pay are generally comparable and do not impose a significantly larger burden than for other small businesses requiring permits under this rule, who pay a range of 0.02% - 11.74% of their revenue as fees. This is in comparison to the range of revenue paid as fees for the PAR 219 facilities, from 0.01% - 5.87%. Non-agricultural facilities filing permits under Rule 1110.2 were chosen from a variety of industries based on their similarity to the 82 agricultural facilities. These facilities were selected based on having no more than $10 million in revenue, since none of the small agricultural facilities had greater than $10 million in revenue, since none of the small agricultural facilities had greater than $10 million in revenue. Then facilities were evaluated individually based on SBA criteria for small businesses by six-digit NAICS code There are 41 facilities with 92 internal combustion

engines and $116 million in revenue, paying $0.162 million in fees. Table 3 shows fees as a percentage of revenue paid by the 41 businesses by NAICS code.

Table 3−Fees as a Percentage of Revenue for Small Rule 1110.2 Facilities by NAICS

Industry (NAICS)	Category	No. Engines	% Fees/Revenue
21	Mining	9	0.86% - 1.21%
22	Utilities	26	0.06% - 2.74%
23	Construction	10	0.02% - 8.81%
31 to 33	Manufacturing	9	0.03% 1.96%
42	Wholesale Trade	1	0.12%
45	Retail trade	2	0.04%
48	Transportation	4	0.02% -0.20%
52	Finance/Insurance	1	1.04%
53	Real Estate	3	1.76% - 3.52%
61	Educational Services	3	0.03% - 0.49%
62	Health Care & Social Assistance	2	0.06% - 1.60%
71	Arts, Entertainment & Recreation	8	0.03% -11.74%
72	Accommodation & Food Services	11	0.04% - 1.10%
81	Other Services	3	0.04% - 5.50%
TOTAL		92	

REFERENCES

Dun and Bradstreet Agricultural Database. 2004.

South Coast Air Quality Management District. Governing Board packages for previous Rule 219 amendments and initial rule adoption. January 1976; October 1976; February 1979; October 1979; September 1981; June 1988; September 1992; August 1994; December 1996; September 1998; August 1999; May 2000; November 2000; July 2003; and December 2004.

South Coast Air Quality Management District. Agricultural Operations Survey. April and June 2004.

South Coast Air Quality Management District. Permit Database. March 2006.